### PATENT COOPERATION TREATY

### From the INTERNATIONAL BUREAU

NOTIFICATION CONCERNING TRANSMITTAL OF COPY OF INTERNATIONAL. PRELIMINARY REPORT ON PATENTABILITY (CHAPTER I OF THE PATENT COOPERATION TREATY)

(PCT Rule 44bis.1(c))

	To:	
ING INATIONAL NTABILITY PERATION	ROTHAEMEL, Berndunger Stockshaff's Schwanhausser in Grünecker, Kinkeldey. Stockshaff's Schwanhausser in Maximillanstrasse 58 ARWALTSSOZIETAT 80538 München ALLEMAGNE 1 0. Feb. 2006	
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CONLEY ROSE P.	C HOU IMPORTANT NOTICE	

Date of mailing (day/month/year) 02 February 2006 (02.02.2006)

Applicant's or agent's file reference PCT2140HHBR/hm

PCT/EP2004/007950

International application No.

International filing date (day/month/year) 16 July 2004 (16.07.2004)

Priority date (day/month/year) 17 July 2003 (17.07.2003)

Applicant

COOPER CAMERON CORPORATION et al

The International Bureau transmits herewith a copy of the international preliminary report on patentability (Chapter I of the Patent Cooperation

The International Bureau of WIPO 34. chemin des Colombettes 1211 Geneva 20, Switzerland

Authorized officer

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### PATENT COOPERATION TREATY

## PCT

### INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

(Chapter I of the Patent Cooperation Treaty)

(PCT Rule 44bis)

Applicant's or agent's file reference PCT2140HHBRrhm	FOR FURTHER ACTION	See item 4 below			
International application No. PCT/EP2004/007950	International filing date (day/month/year) 16 July 2004 (16.07 2004)	Priority date (day/month/year) 17 July 2003 (17 07 2003)			
International Patent Classification (8th edition unless older edition indicated) See relevant information in Form PCT/ISA/237					
Applicant COOPER CAMERON CORPORATION					

1.	This international preliminary n International Searching Authori	eport on patentability (Chapter I) is issued by the International Bureau on behalf of the ty under Rule 44 bis. I(a).				
2.	This REPORT consists of a total of 6 sheets, including this cover sheet.					
	In the attached sheets, any reference to the written opinion of the International Searching Authority should be read as a reference to the international preliminary report on patentability (Chapter I) instead.					
3	This report contains indications relating to the following items:					
	Box No I	Basis of the report				
	Box No. II	Priority				
Box No III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability						
	Box No. IV Lack of unity of invention					
	Box No. V  Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement					
	Box No VI	Certain documents cited				
	Box No. VII	Certain defects in the international application				
	Box No. VIII	Certain observations on the international application				
	The International Bureau will communicate this report to designated Offices in accordance with Rules 44bis.3(c) and 93bis 1 but not, except where the applicant makes an express request under Article 23(2), before the expiration of 30 months from the priority date (Rule 44bis.2)					
		Date of issuance of this report 23 January 2006 (23.01.2006)				

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## PATENT COOPERATION TREATY

rom I	the RNATIONAL SEAR	CHING AUTHO	DRITY		REC'D 29 S	EP 2004
To: see form PCT/ISA/220					WAPO	PCT
				WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY (PCT Rule 43 <i>bis</i> .1)		
				Date of mailing (day/month/year) see form PCT/ISA/210 (second sheet)		
	icant's or agent's file it form PCT/ISA/22			FOR FURTHER ACTION See paragraph 2 below		
	national application N F/EP2004/007950		International filing date ( 16.07.2004	day/monthiyear)	Priority date (day/month) 17.07.2003	(year)
	national Patent Class B13/00, B01F15/		, both national classification	and IPC		
Appl CO	icant OPER CAMERO	N CORPORA	TION			
1.	This opinion co	ntains indicati	ons relating to the fol	lowing items:		
	⊠ Box No. I	Basis of the op	olnion .			
	☑ Box No. II	Priority				
	☐ Box No. III		nent of opinion with reg	ard to novelty, inventi	ve step and industrial ap	plicability
	☐ Box No IV	Lack of unity of	f invention			
Box No V Reasoned statement under Rule 43£     applicability; citations and explanatio				s 1(a)(i) with regard to s supporting such stat	novelty, inventive step tement	or industrial
	☐ Box No. VI	Certain docum	ents cited			
	☐ Box No. VII		s in the international ap			
	図 Box No. VIII	Certain observ	ations on the internatio	nal application		
2	FURTHER ACTI					
If a demand for international preliminary examination is made, this opinion will usually be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA"). However, this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notifed the International Bureau under Rule 66.1 bis(b) that written opinions of this International Searching Authority will not be so considered.						
If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of three months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later						NI OF THE C
For further options, see Form PCT/ISA/220						
3.	For further detail	s, see notes to	Form PCT/ISA/220.			
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Telephone No +49 89 2399-2012



# WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY

International application No. PCT/EP2004/007950

	Box No. I Basis of the opinion						
1. W	. With regard to the language, this opinion has been established on the basis of the international application in the language in which it was field, unless otherwise indicated under this item.						
	lar (ui	is opinion has been established on the basis of a translation from the original language into the following aguage , which is the language of a translation furnished for the purposes of international search and 23.1(b)).					
2. W	With regard to any nucleotide and/or amino acid sequence disclosed in the international application and necessary to the claimed invention, this opinion has been established on the basis of:						
a	type	of material:					
		a sequence listing					
		table(s) related to the sequence listing					
b. format of material:							
		in written format					
		in computer readable form					
c. time of filing/furnishing:							
		contained in the international application as filed.					
		filed together with the international application in computer readable form.					
		furnished subsequently to this Authority for the purposes of search.					
3. [	h C	addition, in the case that more than one version or copy of a sequence listing and/or table relating thereto as been filed or furnished, the required statements that the information in the subsequent or additional opies is identical to that in the application as filed or does not go beyond the application as filed, as oppropriate, were furnished.					
4. <i>l</i>	4. Additional comments:						

## WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY

International application No. PCT/EP2004/007950

	Box No. II Priority							
1.	☑ The following document has not been furnished:							
	© copy of the earlier application whose priority has been claimed (Rule 43bis.1 and 66.7(a)).							
		translation of the earlier application whose priority has been claimed (Rule 43 bis.1 and 66.7(b)).						
	Consequently it has not been possible to consider the validity of the priority claim. This opinion has nevertheless been established on the assumption that the relevant date is the claimed priority date.							
2	This opinion has been established as if no priority had been claimed due to the fact that the priority claim has been found invalid (Rules 43 <i>bis</i> .1 and 64.1). Thus for the purposes of this opinion, the international filing date indicated above is considered to be the relevant date.							
3.	3. Additional observations, if necessary:							
	Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or Industrial applicability; citations and explanations supporting such statement							
1.	Stater	ment						
	Novel	ty (N)		Yes: No:	Claims Claims	4,6-10,14-25 1-3,5,11-13		
	Inven	tive st	ep (IS)	Yes: No:	Claims Claims	4,6-10,14-25 1-3,5,11-13		
	Indust	trial ap	oplicability (IA)	Yes: No:	Claims Claims	1-25		
2.			nd explanations te sheet					

The following observations on the clarity of the claims, description, and drawings or on the question whether the claims are fully supported by the description, are made:

Box No. VIII Certain observations on the international application

see separate sheet

### **Cited Documents**

The following documents indicated in the search report are referred to in this written opinion:

**D1**: US-A-2,789,510 (Meynig, R.E.) **D2**: US-A-2,594,577 (McFarland, A.E.)

### Re Item V

Reasoned statement with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

V.1 The present international application does not fulfill the requirements of the PCT, in that the subject-matter of independent claim 1 is considered to lack novelty in the sense of Article 33(2) PCT.

Document **D1** discloses a dosage feed device (liquid injector) for the dosage of an additive fluid (chemical liquid) in crude oil production (oil stream leaving a well). The dosage feed device of **D1** comprises a dosing element (valve 15 mounted on dosing pump 1) which can be adjusted by an adjustment device (needle valve 24/25/26). The dosing element of **D1** further exhibits a dosing gap (gap between end section 24 of needle 25 and seat 23) and a valve device (ball valve 27) arranged following in the fluid flow direction of said additive fluid. Refer to the passages cited in the search report, and in particular to column 3, lines 29-31: "[...] the rate at which the chemical fluid will be discharged through passageway 22 will be determined by the setting of needle valve 25".

Hence, all the technical features of claim 1 are directly derivable from document **D1** and therefore the subject-matter of claim 1 is not new (Article 33(2) PCT).

V.2 It is noted that the disclosure of document D2 also seems to be prejudicial to the novelty (Article 33(2) PCT) of the subject-matter of claim 1. D2 discloses a common piston type dosing pump with adjustable stroke length of the piston. In this context the dosing element is representable by the piston in its cylinder, and the adjustment device is represented by the stroke adjustment means. The term "dosing gap" is considered to be broad enough to include the pumping chamber/gap 6 of D2, which chamber is of adjustable size with the varying of the piston stroke, and which

- chamber is delimited by a valve following in the fluid flow direction of said additive fluid.
- V.3 Dependent claims 2, 3, 5 and 11 to 13 do not appear to contain any additional features which, in combination with the features of any claim to which they refer, meet the requirements of the PCT with respect to novelty (Article 33(2) PCT), since these additional features are already known from document **D1**.

### Re Item VIII

### Certain observations on the international application

VIII.1 The subject-matter of claim 1 lacks clarity in the sense of Article 6 PCT), due to the use of the wording "in particular for" in order to define the dosing of an additive fluid. This wording merely defines an optional, not limiting possiblity of dosing said additive fluid. The lack of clarity arises due to the fact that the mutual arrangement of the dosing gap and the valve device is being defined in relation to the flow direction of the (optional) additive fluid.